

## **Test results of LANL/AAA spoke cavities**

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Test results of the LANL/AAA 350-MHz 2-gap spoke cavities EZ01 and EZ02 will be presented. They were fabricated by Zanon, Italy. The cavity EZ02 has shown a maximum accelerating field of 12.9 MV/m after helium processing. The limitation was field emission and associated quench. The initial low-field  $Q_0$  with two large side ports blanked with niobium flanges was  $1.04E9$ , but it degraded by 48 % when one of the niobium blank flanges was replaced with a stainless steel (SS) bellows. This degradation was significantly larger than we predicted (4 - 5 %) with MAFIA and MWS calculations. We therefore will test this again to confirm that this degradation is attributed to the SS bellows.

We also tested Q disease with the cavity EZ02. Q disease occurred after holding the cavity at 100 - 132 K for 61 hours, i.e.,  $Q_0$  degraded by a factor of 1.8 (0.7 MV/m) to 2.4 (7.1 MV/m). The degradation, however, was recovered after warming up to  $\sim 185$  K. To know the detailed temperature and holding time dependence on the degradation, we will test the cavity more systematically in the future.